



# County of San Diego

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## MANAGEMENT OF WASTE AEROSOL CANS

*"Environmental and  
Public*

*Health through leadership,  
partnership and science"*



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Fact Sheet  
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### Background:

Effective January 1, 2002, Senate Bill 1158 (SB1158), established new waste management procedures for aerosol cans. This law authorized the management of non-empty waste aerosol cans as "Universal Waste", allowing the puncturing, draining, or crushing of these cans without a treatment permit and eliminating the treatment of hazardous waste aerosol cans under the Conditionally Exempt Tier for Onsite Treatment of Hazardous Waste.

The passage of this law provides an easier alternative to manage waste aerosol cans that are not empty due to a defective spray mechanism or that contain more than 3% by weight of the total capacity of the container. Formerly, these cans had to be managed as hazardous waste, and the puncturing, draining, or crushing of these cans was considered hazardous waste treatment that required authorization under one of the California hazardous waste treatment permitting tiers.

With the implementation of SB 1158, generators of waste aerosol cans that contain hazardous residues have the option of managing these cans as hazardous waste or as **Universal Waste Aerosol Cans (UWACs)**. Treatment of these cans under the Universal Waste Rule allows generators to process them by puncturing, draining, or crushing in order to separate the waste residuals from the can. This law reduces the regulatory burden and the cost of managing waste aerosol cans.

This fact sheet explains the new procedures established by SB 1158 for the management and processing of Universal Waste Aerosol Cans. This statute is codified in the California Health and Safety Code, Division 20, Chapter 6.5, Section 25201.16.

**Applicability:** The requirements of SB 1158 apply to any person who manages aerosol cans, with the exception of cans that are not yet wastes, do not exhibit the characteristic of a hazardous waste, or aerosol cans that are empty.

**Storage:** Containers used to accumulate or transport UWACs or the contents removed from a UWAC or processing device, must be structurally sound and compatible with the contents of the UWAC. These containers must be maintained closed and show no evidence of leakage, spillage or damage that could result in a release of the contents of the UWAC into the environment.

**Compatibility:** Containers used to accumulate universal waste aerosol cans shall be accumulated in a manner that is sorted by type and compatibility of contents.

**Labeling:** Containers used to accumulate UWACs shall be labeled or marked clearly with one of the following: "Universal Waste-Aerosol Cans", "Waste Aerosol Cans" or "Used Aerosol Cans".

**Residuals Management:** Any hazardous wastes generated from processing UWACs shall be managed in accordance the requirements of Chapter 12 of Division 4.5 of the California Code of Regulations.

# Frequently Asked Questions

## 1. Q. When are aerosol cans considered wastes?

A. An aerosol can becomes a waste on the date the aerosol can is discarded or is no longer useable. An aerosol can is deemed to be no longer useable when any of the following occurs:

- The can is as empty as possible, using standard practices.
- The propellant is spent.
- The mechanism has malfunctioned and no longer delivers the contents and cannot, or will not, be repaired (by cleaning or replacing the nozzle, for instance).
- The product is no longer used.
- The owner decides to discard it.
- The material is outdated, banned, or otherwise cannot be used.

## 2. Q. Must all aerosol cans be managed as universal or hazardous waste?

A. No. The management standards for either universal or hazardous waste aerosol cans only apply to aerosol cans that are a waste and that contain a substance that is classified as a hazardous waste. Aerosol cans are not considered to be waste when:

- The can is or will be used to deliver its contents in the manner normally intended.
- Aerosol cans are not considered to be hazardous waste when they are empty of propellant and contents or they never contained a hazardous liquid, gas or solid.

## 3. Q. What is considered to be an empty aerosol can?

A. State law does not define when an aerosol can is empty. However, Title 22, CCR Section 66261.7(m) does exempt aerosol containers from regulation as a hazardous waste when the propellant and contents have been emptied to the maximum extend practical under normal use. This regulatory standard can be applied to the statutory reference to “non-empty aerosol can”.

## 4. Q. Can homeowners and conditionally exempt small quantity generators (CESQGs) dispose of aerosol cans into the trash as solid waste?

A. The homeowner and CESQG exemption in Title 22, CCR, Section 66273.8 does not apply to management of non-empty aerosol cans. Homeowners and CESQGs may dispose of empty aerosol cans as solid waste. Hazardous waste or universal waste aerosol cans must be managed appropriately.

## 5. Q. How long can universal waste aerosol cans be accumulated?

A. Universal waste aerosol cans can be accumulated for one year at each universal waste handler’s site of business.

## 6. Q. Can a business with more than one site transport Universal Waste aerosol cans to one site for consolidation and processing?

A. Yes. A small or large quantity handler of universal waste can transport universal waste aerosol cans to another universal waste handler, a destination facility or foreign destination provided that they keep records of shipment and comply with Title 22, Chapter 23, Article 4. Universal waste must be transported as a material per 49 CFR Parts 171 through 180.

## 7. Q. Does a device used to process aerosol cans have to be certified by DTSC?

A. No. A Universal Waste Aerosol Can Handler is not required to use a DTSC certified technology to process the cans. The new statute requires that the processing equipment is designed, maintained, and operated so as to prevent fire, explosion, and unauthorized release to the environment. It is the Universal Waste Aerosol Can Handler’s responsibility to ensure that processing equipment meets this standard.

## 8. Q. The new statute governing the processing of aerosol cans requires that they be processed in a manner and in equipment designed, maintained, and operated to prevent fire, explosion, and the unauthorized release of universal waste or component of universal waste to the environment. What is intended by this section of the law?

A. This is an open performance standard, adopted to grant flexibility. Best professional judgment should identify when the standard is violated. Factors to be considered would include:

- Is the operation in compliance with the Uniform Fire Code?
- Is the equipment made safely?
- Are all the metal parts bonded and is the equipment grounded?
- Are all electrical components in the immediate vicinity intrinsically safe (such as explosion proof)?
- Is the operation located away from open flames and other ignition sources?
- Are all the equipment components compatible with contents of the can?
- Does the equipment meet Air Pollution Control District requirements?
- Also consider things such as:
  - Cans stored next to a hot furnace
  - Cans stored near acids where the cans would corrode
  - Cans stored where they are likely to suffer mechanical damage
  - Cans sorted to prevent inadvertent, sequential, processing of incompatible waste.

## 9. Q. When is a container used to accumulate or transport universal waste aerosol cans considered closed? Structurally sound? Compatible with the contents of the universal waste aerosol can?

A. The same management standards used for hazardous waste containers apply. Use the general hazardous guidance and knowledge to guide your management practices.

## 10. Q. What does “prior to processing the cans” or “prior to shipping the cans offsite” mean?

A: “Prior to processing the cans” means after the cans become waste (see question 1), and “prior to shipping the cans offsite” means before the cans are processed and/or shipped offsite.

## 11. Q. What is considered to be sufficient ventilation to avoid formation of an explosive atmosphere?

A. This is best determined by calculating the airflows in the room or area where cans are being processed and factoring in the releases from the unit. These calculations are commonly performed to design systems and work areas that allow businesses to meet OSHA and CalOSHA exposure limits. Many other busi-

nesses regularly perform such calculations to meet the fire code and insurance requirements when they are using flammable solvents with low vapor pressure or flammable gases.

- Note that this standard is most easily enforced when the facility fails to meet it. That is, when the facility fails to keep the atmosphere around the operation below the lower explosive limit (LEL) as measured by a flammable gas meter.

**12. Q. What type of container would be considered acceptably designed, built, and maintained to withstand pressure reasonably expected during storage and transportation?**

**A.** The statutory standard addresses containers that are used to accumulate universal waste cans and containers that are used to accumulate the hazardous waste residuals from the processing of universal waste aerosol cans. It is the duty of the generator to determine that the containers used meet this standard.

Factors to be considered would include:

- Aerosol cans are designed to be used and stored in small quantities at temperatures of 130 degrees Fahrenheit or less.
- Aerosol cans that are damaged, stored in direct sunlight or stored at high temperatures can explode.
- Aerosol cans processing waste residues that are hazardous waste must be managed under hazardous waste standards.
- Containers must be compatible with their contents. This includes the contents of the universal waste aerosol cans.
- Containers must be able to withstand the vapor pressure of their contents at the highest temperature that will be reached in storage and transportation.
- Containers must meet the United States Department of Transportation (USDOT) shipment standards established for containers of similar materials.
- Containers must be able to withstand shocks and impacts expected during handling and transportation.
- Containers that bulge, rupture, or leak during accumulation or transportation, are inappropriate containers.

**13. Q. What is considered sufficiently impervious and bermed to contain leaks and spills?**

**A.** Impervious means that the liquid will not soak through the surface. This determination must be based on the material to be contained. A wooden enclosure is obviously not in compliance. In many cases, unsealed concrete may not be appropriate due to its porosity. Bermed means that a berm completely surrounds the area where a leak can take place. The statute is silent on the volume that must be contained, but is best interpreted as having the capacity to hold the contents of the largest container.

**14. Q. What is considered a safe distance from heat and open flames?**

**A.** This is addressed in the Uniform Fire Code. The propellant in aerosol cans is typically a flammable gas and in many cases the contents can produce explosive vapors. These must be isolated from any source of ignition. Unsafe situations can be identified and prevented by applying professional judgment and common sense.

**15. Q. What would be considered type and compatibility of contents when accumulating universal waste aerosol cans?**

**A.** Material Safety Data Sheets (MSDS) usually contain information on material compatibility. Appendix V to Title 22,

CCR, Division 4.5, Chapter 14 also contains guidance on incompatible wastes. For instance, an alkaline oven cleaner mixed with chlorinated solvents will release highly toxic phosgene gas. Additional factors to consider would be:

- Will combining contents from different cans make the mixture impossible to recycle or significantly increase the cost of recycling?
- Will combining different materials subject a large volume of materials to stricter standards due to the contents of one can (for example, a can containing an acutely hazardous waste)?

**16. Q. What is meant by “immediately transfers the contents of universal waste aerosol can to a container meeting the requirements of subdivision (f)”?**

**A.** This means that the puncturing device itself must meet the requirements of subdivision (f) of the statute. The operator must transfer the contents of the puncturing device to such a container as soon as the puncturing operation is completed. It does not mean that the operator must transfer the contents after each individual can is processed. Contents may not be left in the device until the next batch of cans arrives unless the device itself meets the requirements of subdivision (f).

**17. Q. What is considered adequate documentation of a training program?**

**A.** Title 22, CCR, Section 66265.16 sets forth detailed training and record retention standards for generators of hazardous waste that would meet this standard. If this standard is not used, the documentation should contain:

- A copy of the training materials, a course outline, or a detailed description of the training.
- A listing of employees trained and the dates of their training for all active employees managing the non-empty aerosol cans, with the training being appropriate for their duties. Additionally, training documentation should be accessible during an inspection.
- Note that all generators of hazardous waste, including those managing hazardous waste contents drained from non-empty aerosol cans, must comply with hazardous waste generator requirements including Section 66265.16.

**18. Q. What notification form should be used to ensure with compliance of notification to the CUPA?**

**A.** Unless or until a form is adopted and incorporated by regulation into the unified form, the notification should be sent to the CUPA containing all the information required by Health and Safety Code Section 25201.16 (j). This notification could take the form of a letter. The notification should be, but is not required to be, sent by certified mail with a return receipt requested, to document the facility's compliance with the notification requirement.

**19. Q. Is DTSC planning any regulations specifying any additional requirements or limitations on the management of hazardous waste aerosol cans?**

**A.** DTSC is not currently considering any additional standards other than possibly specifying the notification form. Any other additional standards would be adopted if the implementation of the bill demonstrates a need for them.